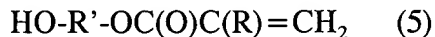


which is obtained by reacting a hydroxyl-terminated vinyl polymer with a diisocyanate compound and further causing the residual isocyanate group to react with a compound of the general formula (5):



wherein R represents hydrogen or an organic group containing 1 to 20 carbon atoms; R' represents a bivalent organic group containing 2 to 20 carbon atoms.

15. (Amended) The vinyl polymer according to Claim 12,

wherein R is hydrogen or a hydrocarbon group of 1 to 20 carbon atoms.

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33. (Amended) A pressure sensitive adhesive composition comprising the curable composition according to Claim 19 or an aqueous emulsion thereof.

34. (Amended) A pressure sensitive adhesive obtained from the pressure sensitive adhesive composition according to Claim 33.

#### REMARKS/ARGUMENTS

Claims 1-6 and 8-34 are now in the application. Claim 1 has been amended to include recitations from prior claim 7.

Claims 11-14 and 34 have been amended to recite "obtained" for purposes of clarity. Claim 33 has been amended to recite "according to claim 19" for purposes of clarity. Claim 15 has been amended to depend from claim 12 to address the objection of claims 15 and 16.

The rejection of claims 11-14, 33 and 34 under 35 USC 112, second paragraph has been overcome by the above amendments to these claims.

The rejections of claims 1-3, 13, 15-19, 22, 28 and 29 under 35 U.S.C 102(b) as being anticipated by U.S. 5,242,983 to Kennedy et al; of claims 1-6, 11, 13-20, 22, 23, and 34 under 35 U.S.C 102(b) as being anticipated by Randen et al (U.S. 5,604,268); of claims 8-12 under 35 U.S.C 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over any one of the following: JP'720, Kennedy or

Randen, each one individually; of claims 6, 8-10, 21, 30-33 under 35 U.S.C 103(a) as being unpatentable over Matyaszeewski (U.S. 5,807,937) alone or over JP'720 in combination with Matyaszeewski; and of claims 19, 24-32 under 35 U.S.C 103(a) as being unpatentable over any one of JP'720, Kennedy, Randen or Matyaszeewski combined with Fifield (U.S. 5,381,735) have been rendered moot by the amendment to claim 1 to include recitations of prior claim 7. In particular, claim 7 was not rejected over the above references.

Claims 1-3, 7, 15, 16 and 17 were rejected under 35 U.S.C 102(b) as being anticipated by JP06329720. JP06329720 does not anticipate the above claims.

Claim 1 is directed to a vinyl polymer having at least one terminal group of formula (1) per molecule.

The claimed phrase "at least one group per molecule" means the average value of the group number. This is clear from the description "the number of the group of the general formula (1) ... is preferably 1.2 to 4" on page 6, lines 27-29 of the instant specification.

Although JP06329720 discloses a (meth)acryloyl group-terminated polyethylene, the polyethylene has less than one (meth)acryloyl group per molecule. Along these lines, see formula (1) in claim 1 of '720. Since R1 represents a saturated hydrocarbon, the polyethylene has the (meth)acryloyl group at only one termini.

It seems that in the formula (1), the polyethylene has one (meth)acryloyl group per molecule. However, it is not possible to prepare a polyethylene having one (meth)acryloyl group in accordance with the process disclosed by '720.

According to JP06329720 ([0028]), nucleophilic addition reaction of an alkyl lithium to a carbonyl compound generally competes with the pull reaction of  $\alpha$ -hydrogen so that polyethylene without terminal functional group forms as a by-product to a certain extent.

In fact, Example 1 of '720 shows a terminal methacryloyl introduction rate of 87%, and Example 2 shows a terminal methacryloyl introduction rate of 80%.

Therefore, a polyethylene having even one terminal group cannot be prepared according to the suggestions in '720.

Accordingly, '720 does not disclose the claimed vinyl polymer having at least one terminal group of formula (1) per molecule.

The cited reference fails to anticipate the present invention. In particular, anticipation requires the disclosure, in a prior art reference, of each and every recitation as set forth in the claims. See *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985), *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986), and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 USPQ2d 1241 (Fed. Cir. 1986).

There must be no difference between the claimed invention and reference disclosure for an anticipation rejection under 35 USC 102. See *Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 USPQ2d 1001 (CAFC 1991) and *Studiengesellschaft Kohle GmbH v. Dart Industries*, 220 USPQ 841 (CAFC 1984).

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **“Version with markings to show changes made.”**


In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event that the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this communication including any extension fees to Deposit Account No. 22-0185.

Dated: July 29, 2002

Respectfully submitted,

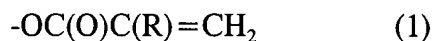
By 

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**Version With Markings to Show Changes Made**

1. (Amended) A vinyl polymer having at least one terminal group of the general formula (1) per molecule;



wherein R represents hydrogen or an organic group containing 1 to 20 carbon atoms,

which polymer is obtained by living radical polymerization.

8. (Amended) The vinyl polymer according to Claim [7] 1

wherein said living radical polymerization is atom transfer radical polymerization.

11. (Amended) The vinyl polymer according to Claim 1,

which is [obtainable] obtained by the polymerization of a vinyl monomer using a chain transfer agent.

12. (Amended) The vinyl polymer according to Claim 1,

which is [obtainable] obtained by reacting an olefin polymer having a terminal structure represented by the general formula (2) with a compound represented by the general formula (3):



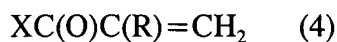
wherein  $\text{R}^1$  and  $\text{R}^2$  each represents a group attached to the ethylenically unsaturated group of the vinyl monomer; X represents chloro, bromo or iodo,



wherein R represents hydrogen or an organic group containing 1 to 20 carbon atoms;  $\text{M}^+$  represents an alkali metal or quaternary ammonium ion.

13. (Amended) The vinyl polymer according to Claim 1,

which is [obtainable] obtained by reacting a hydroxyl-terminated vinyl polymer with a compound of the general formula (4):



wherein R represents halogen or an organic group containing 1 to 20 carbon atoms; X represents chloro, bromo, or a hydroxyl group.

14. (Amended) The vinyl polymer according to Claim 1,

which is [obtainable] obtained by reacting a hydroxyl-terminated vinyl polymer with a diisocyanate compound and further causing the residual isocyanate group to react with a compound of the general formula (5):



wherein R represents hydrogen or an organic group containing 1 to 20 carbon atoms; R' represents a bivalent organic group containing 2 to 20 carbon atoms.

15. (Amended) The vinyl polymer according to Claim [1] 12,

wherein R is hydrogen or a hydrocarbon group of 1 to 20 carbon atoms.

33. (Amended) A pressure sensitive adhesive composition comprising the curable composition according to Claim 19 or an aqueous emulsion thereof.

34. (Amended) A pressure sensitive adhesive [obtainable] obtained from the pressure sensitive adhesive composition according to Claim 33.